

'A Nuclear Disaster'

$$\text{a) } t = \frac{x}{8} - 10 \quad (1)$$

$$y = 100 - \left(\frac{x}{8} - 10\right)^2 \quad (1)$$

$$y = \frac{5}{2}x - \frac{x^2}{64} \quad (1)$$

$$\text{b) } 0 = x \left(\frac{5}{2} - \frac{x}{64}\right)$$

$$x = 0, x = 160 \quad (1)$$

thus the width of the arch is 160 m (1)